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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/718,057

11/20/2003

Nicholas McMahon Turner

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08/09/2006

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EXAMINER

NASSER, ROBERT L

ART UNIT

PAPER NUMBER

3735

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,057

Applicant(s)

TURNER ET AL.

Examiner

Robert L. Nasser

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3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1-4, 6, 7, 15, 23-26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Villafana 5487760. Villafana shows a heart valve that includes a sensor 52 and a telemetric communication device 50 for transmitting data telemetrically to a remote device. Claim 3 is rejected in that the valve receives power from the remote device (see column 4, lines 31-37). Claim 4 is rejected in that element 50 is a transponder. Claim 6 is rejected in that the transceiver 50 is powered by an rf field (see column 4, lines 36-37). Claim 7 is rejected in that the transceiver is an rf transceiver to transmit data via an rf field. Claim 15 is rejected in that Villafana's sensor is a passive sensor. Claim 23 is rejected in that Villafana is a mechanical valves. Claim 24 is rejected in that Villafana has the remote device 62. Claim 25 is rejected in that the remote device powers the valve. Claim 26 is rejected in that the remote device stores the data. Claim 28 is rejected in that the modem is a data transmission means.

Claims 1, 3, 4, 7, 9-12, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Porat et al 6277078. Porat show a device that can be implanted in the heart including a sensor 106 and a telemetry means 110 for wirelessly transmitting data to a remote device. It is the examiner's position that Porat is a device capable of monitoring the functioning of a heart valve. Claim 3 is rejected in that Porat powers the implanted device from the remote device (see column 6, lines 29-33, for example). Claim 4 is rejected in that the telemetry device is a transponder. Claim 7 is rejected in that the telemetry device transmits data via an rf field. Claim 9 is rejected in that the

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sensors 106 measure blood pressure. Claims 10 and 11 are rejected in that in figure 13, there are 2 spaced apart pressure sensors and the device transmits signals which is related to the difference between the signals (see column 11, lines 13-34), noting that if both signals are sent, then the signals are related to the difference. Claim 12 is rejected in that the device alternatively has an acoustic sensor (see column 18). Claims 15-18 are rejected in that the sensors are passive, piezoelectric sensors, with a pvd active surface (see column 18, under acoustic sensor).

Claims 1, 9, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Noren et al 3671979. Noren et al shows a device capable of being implanted into the heart including a plurality of sensors (see figure 22) and a telemetry device to transmit the data to a remote device. It is the examiner's position that Noren is a device capable of monitoring the functioning of a heart valve. Claim 9 is rejected in that there is a pressure sensor. Claim 12 is rejected in that there is an acoustic sensor. Claim 13 is rejected in that there is both a pressure and an acoustic sensor (see figure 22).

Claims 24 and 26-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Lai et al 5,855,580. Lai teaches a system for measuring medical data including a plurality of sensors see figure 2, connected to a patient unit 16, which has telemetric communication means for connecting to a remote device 14. Claim 26 is rejected in that the remote device stores data in a memory device (see column 4, lines 1-16). Claim 27 is rejected in that some analysis of data is done at the central station 14 (see column 3, lines 56-61). Claim 28 is rejected in that the remote device has its own data

transmission means, i.e. it is a two way data link. Claims 29 and 30 are rejected in that the central station 14 stores data on a floppy disk (see column 4, lines 1-16).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villafana. Claim 5 is rejected in that the examiner takes official notice that an rf tag is a known rf transmission device and that it would have been obvious to modify Villafana to use such a transmitter, as it is merely the substitution of one known equivalent transmitter for another. Claim 8 is rejected in that the examiner notes that applicant has not stated that making the using an integrated circuit for the telemetry device is for a specific purpose or that it solves a stated problem. As such, to select a IC telemetry device would have merely been a matter of design choice for one skilled in the art.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porat et al. Claim 5 is rejected in that the examiner takes official notice that an rf tag is a known rf transmission device and that it would have been obvious to modify Porat to use such a transmitter, as it is merely the substitution of one known equivalent transmitter for another. Claim 8 is rejected in that the examiner notes that applicant has not stated that making the using an integrated circuit for the telemetry device is for a

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specific purpose or that it solves a stated problem. As such, to select a IC telemetry device would have merely been a matter of design choice for one skilled in the art.

Claim 14 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Noren et al. Whether to use separate sensors are a single combined sensor would have been a mere matter of design choice to one skilled in the art.

Claims 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villafana in view of Navia et al 5156621. Villafana teaches in column 2, line 28, that the valve of the invention can be a tissue valve. It does not give the structure of a tissue valve. Navia et al shows a tissue valve where the valve wall is made of tissue. Hence, it would have been obvious to modify Villafana to use the valve of Navia, as it is merely the selection of a known tissue valve in the art. Claim 20 is rejected in that the sensor and transceiver of the combination are inside of a cover (see Villafana figure 2). Claim 22 is rejected in that the valve of Navia is stentless.

Claims 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villafana in view of Alonso 5032128. Villafana teaches in column 2, line 28, that the valve of the invention can be a tissue valve. It does not give the structure of a tissue valve. Alonso et al shows a tissue valve where the valve wall is made of tissue. Hence, it would have been obvious to modify Villafana to use the valve of Alonso, as it is merely the selection of a known tissue valve in the art. Claim 20 is rejected in that the sensor and transceiver of the combination are inside of a cover (see Villafana figure 2). Claim 22 is rejected in that the valve of Alonso has a stent.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reich et al and Kaplan shows devices with multiple pressure sensors in a implanted, telemetric device.

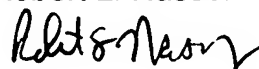
Moulopoulos shows a heart valve with a pressure sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser



ROBERT L. NASSER
PRIMARY EXAMINER

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Primary Examiner
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RLN
July 31, 2006